AUGUST 8, 1983

7/22/83 C8900-1

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FORTUNE

THE BULL MARKET'S BIGGEST WINNERS

$ 1.2 BILLION

David Packard

$624 MILLION

George P. Mitchell

$599 MILLION

William R. Hewlett

$515 MILLION

Jane B. Cook

443 MILLION

Kirk Kerkorian

COMPLETE LIST: SEE PAGE 36

BATTERED ATARI: NEW BOSS, NEW PLAN

PROTECTIONISM, REAGAN-STYLE: THE STEEL QUOTAS

U.S. EXPORTERS: FORTUNE'S TOP 50

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MAY88 000 ES520099Y 52 08 14
CONGRSSNL INFO SVC MD30
4520 EAST-WEST HWY
STE 800 SRI ACQ
BETHESDA MD 20814
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The biggest winners in the current bull market are entrepreneurs, not portfolio investors. For a revealing report on who made the most spectacular killings, see page 36.

COVER CREDITS: PACKARD AND HEWLETT PHOTOGRAPHED BY TED KURIHARA; MITCHELL BY DAN F. CONNOLLY, 1979; COOK BY CHARLES MOORE—BLACK STAR, 1971; KERKORIAN BY PETER C. BORSARI.

FORTUNE (ISSN 0015-8259), August 8, 1983, Vol. 108, No. 3. Issued biweekly by Time Inc., 3435 Wilshire Blvd., Los Angeles, Cal. 90010. Second-class postage paid at Los Angeles, Cal., and at additional mailing offices. Subscriptions: U.S., U.S. possessions: one year $39; Canada: one year $49. Address all subscriptions and correspondence concerning them to FORTUNE, 541 North Fairbanks Court, Chicago, Ill. 60611. Principal offices: Time & Life Building, Rockefeller Center, New York, N.Y. 10020. Address correspondence concerning editorial material to FORTUNE, Time & Life Building, Rockefeller Center, New York, N.Y. 10020. J. Richard Munro, President, E. Thayer Bigelow, Treasurer, Charles B. Bear, Secretary. Authorized as second-class mail by the Post Office Department, Ottawa, Canada, and for payment of postage in cash. Member, Audit Bureau of Circulation. POSTMASTER: Send address changes to FORTUNE, Time & Life Building, 541 North Fairbanks Court, Chicago, Ill. 60611. © 1983 Time Inc. All rights reserved. Reproduction in whole or in part without permission is prohibited. FORTUNE is a registered mark of Time Incorporated.

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THE BULL MARKET'S BIGGEST WINNERS

STOCKS/JEREMY MAIN

■ Fifty-three stockholders have each made paper profits of more than $100 million since the beginning of the bull market in the U.S. last August. One of them, David Packard, co-founder of Hewlett-Packard Inc., is richer by $1.2 billion (that's *billion*). Three others, including Packard's partner, William R. Hewlett, added more than $500 million to their fortunes.

The complete list of $100-million-and-up winners beginning on page 38 indicates that entrepreneurs and their heirs rather than portfolio investors make the really big stock market fortunes. It also shows that entrepreneurs can create enormous wealth quickly. Indeed, K. Philip Hwang, 46, who gained $247 million, wasn't even in the stock market until March, when he took his company, TeleVideo Systems Inc., public.

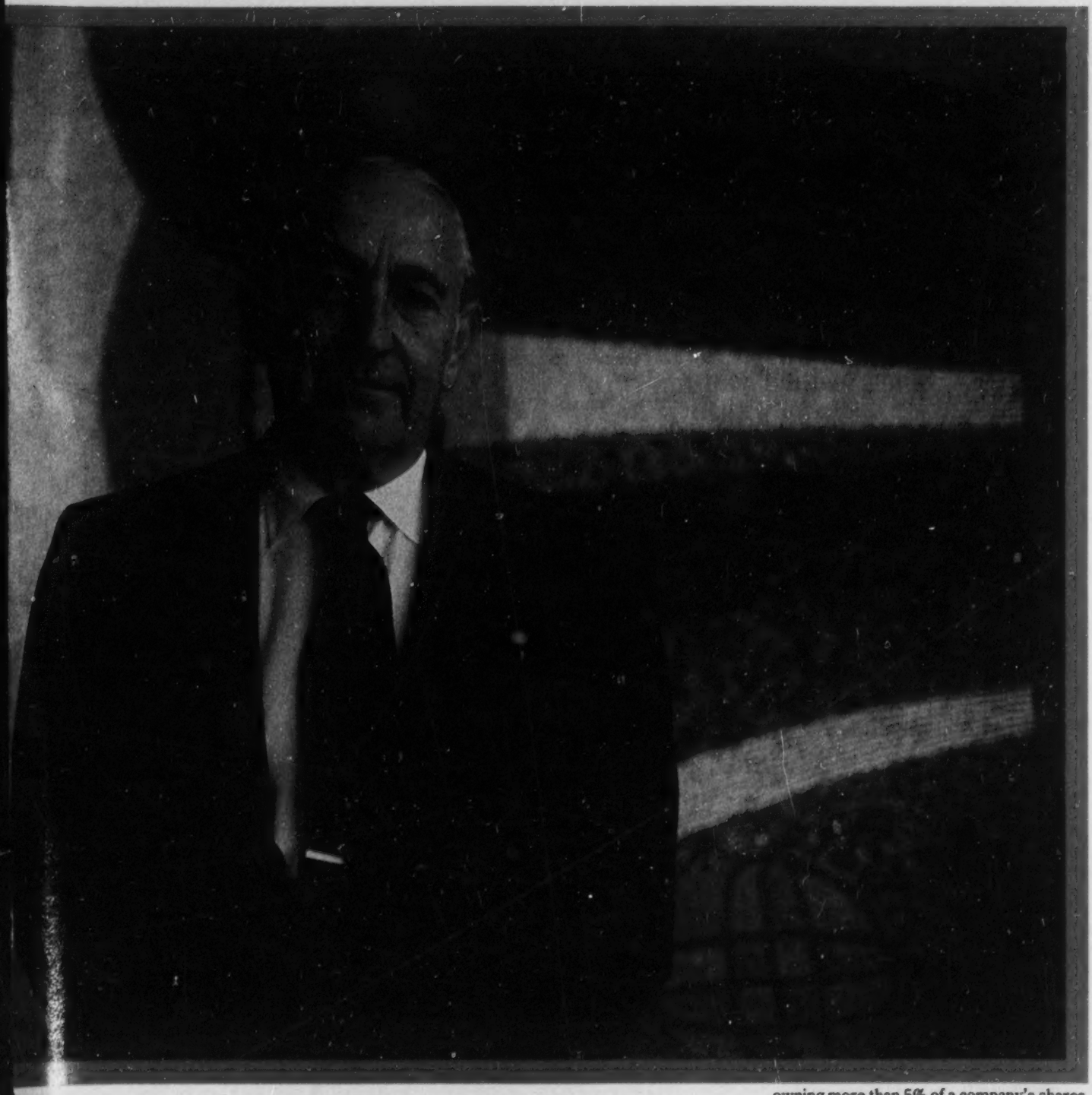
At the offering price of $18 a share, the 28.2 million TeleVideo shares (68.7% of the company) retained by Hwang were worth $508 million. When the price soared briefly to $40, he was worth more than $1.1 billion for a dizzying moment. The stock dropped to $26.75 at the beginning of July, bringing the value of his holdings down to $755 million. For purposes of this article, FORTUNE credited Hwang with a bull market gain of $247 million, the difference between the July 1 value of $755 million and the starting sum of $508 million.

An emigrant from South Korea, Hwang was sweeping casino floors in Lake Tahoe 15 years ago to work his way through Utah State University. When he incorporated TeleVideo in 1976, venture capitalists had no interest in helping at the company's birth. "I don't blame them," says Hwang. "I was just an engineer with an idea and no management experience." He mortgaged his house, his car, and his furniture to raise capital. Today TeleVideo is the leading supplier of video display terminals outside IBM. Says Hwang with feeling, "It's a miracle."

To find out who made the most in the bull market, FORTUNE enlisted the help of Computer Directions Advisers Inc., a publisher of financial statistics in Silver Spring, Maryland. The firm found 1,186 publicly traded companies whose total stock has appreciated by $100 million or more in the bull market. The rally's starting point was August 12, when the Dow Jones industrial average bottomed out at 776.9. In the next three months the market set off on one of the fastest climbs of the century, and prices continued to rise, though more slowly, in 1983. By July 1 the Dow stood at 1225.3, a gain of 57.7%, and other measures were up even more: the New York Stock Exchange composite index had gained 66.5%.

To find the individual investors—as contrasted with institutions—who had the biggest chunks of the best-performing stocks, FORTUNE turned to Securities and Exchange Commission records. The SEC requires the disclosure of holdings and trades by all corporate directors and officers and by anyone

RESEARCH ASSOCIATES *Lucia Halpern, Philip Mattera, Kathleen Carroll Smyth*



JANET FRIES

$1.2 BILLION

David Packard
Co-founder, chairman, Hewlett-Packard

owning more than 5% of a company's shares. Unlike calculations of an individual's total wealth, which include undisclosed assets and liabilities and often come down to sheer guesswork, the gain in the value of shareholdings can be computed from the required disclosures. Computer Directions periodically publishes the disclosures. To confirm and update those data, we checked hundreds of proxy statements, company reports, SEC

NAME	Age	Residence	Company (percent owned)	Relationship to company	Value of shares on 7/1/83 Millions	GAIN IN BULL MARKET SINCE 8/12/82 Percent	Millions
GAINED OVER $1 BILLION							
[illegible]							
GAINED $500 MILLION TO $999 MILLION							
WILLIAM R. HEWLETT	70	Palo Alto, Calif.	Hewlett-Packard (9.1%)	Co-founder, director	$1,045	134%	$599
GAINED $300 MILLION TO $499 MILLION							
KIRK KERKORIAN	66	Las Vegas	MGM Grand Hotels (48.5%) MGM/UA Entertainment (54.1%)	Investor	$651	213%	$443
[illegible]							
DAVID B. SHAKARIAN	69	Pittsburgh	General Nutrition (59.5%)	Founder, C.E.O.	$472	299%	$360
SAM M. WALTON	65	Bentonville, Ark.	Wal-Mart Stores (8.2%)	Co-founder, C.E.O.	$441	216%	$301
GAINED $200 MILLION TO $299 MILLION							
[illegible]							
JOHN T. WALTON	37	Coronado, Calif.	Wal-Mart Stores (8.1%)	Co-founder's son	$434	216%	$297
JAMES L. KNIGHT	74	Bal Harbour, Fla.	Knight-Ridder (28.6%)	Co-founder, director	$563	106%	$290
[illegible]							
K. PHILIP HWANG	46	Sunnyvale, Calif.	TeleVideo Systems (68.7%)	Founder, C.E.O.	$755	49%	$247
JOHN W. KLUGE	69	New Rochelle, N.Y.	Metromedia (23.9%)	C.E.O.	$362	176%	$230
[illegible]							
LEON LEVINE	46	Charlotte, N.C.	Family Dollar Stores (61.9%)	Founder, C.E.O.	$288	311%	$220
IRVING GOULD	64	Bahamas	Commodore International (17.7%)	Chairman	$288	307%	$217

The Centimillion-Dollar Winners

FORTUNE's listing of winners in the stock market is made up of individuals whose personal wealth in corporate shares increased by more than $100 million between August 12, 1982, and July 1, 1983. Only common stocks publicly traded in the U.S. were counted. Options, warrants, and convertible securities were omitted as having somewhat hypothetical value until the rights they convey are exercised. Family foundations were excluded, but trusts that benefit the investors were included. Most of the gains listed are paper profits, but bull market profits realized by sales before July 1 were taken into account. Stocks bought during the bull market were valued from the date of purchase. One company on the list, TeleVideo Systems, went public during the period. Only the gains achieved above the offering price of $18 per share were attributed to TeleVideo's founder, K. Philip Hwang. Mark Taper won't get to collect his full $304-million share of First Charter Financial because he had agreed before July 1 to sell it to Financial Corp. of America for $27 million less. Shares held in the names of spouses and dependent children were considered part of the investors' fortune, but the holdings of grown children, brothers and sisters, and more distant relatives were treated independently. Computer Directions Advisors Inc. of Silver Spring, Maryland, and Corporate Data Exchange of New York City helped FORTUNE develop the data.

files, and other sources, and enlisted the help of a New York City financial consulting company, Corporate Data Exchange, to analyze complicated family holdings.

The result is the list of 53 individuals whose identifiable stock market wealth in the U.S. increased by more than $100 million between August 12 and July 1. These individuals may have made additional profits (or losses) on holdings that are not recorded publicly. Some big winners might have escaped detection altogether; for example, astute investors who are neither insiders nor holders of 5% of a company's shares might conceivably have made $100 million or more with a diversified portfolio. But FORTUNE examined the performance of the best-known Wall Street gymnasts and found few who could claim $100-million leaps in their personal portfolios. The group's outstanding success: Warren E. Buffett, 52, the wizard of Omaha, whose known investments appreciated by $248 million in the less than 11 months since last August.

Some companies that performed best in the bull market did not produce huge individual winners because their shares are widely dispersed. For instance, the value of all outstanding IBM shares increased by $35.7 billion and of AT&T shares by $16.7 billion, but no publicly identified investor in either stock had nearly enough to make $100 million. Some of the most successful executives fell far short of that too. Thanks largely to Chairman Lee A. Iacocca's heroic efforts to revive Chrysler Corp. (with a little help from Uncle Sam), the price of the company's stock more than quadrupled, from $6.75 last August to $31.75 on July 1. But Iacocca had only 65,200 shares, which increased in value by a piffling $1.6 million. Even taking into account stock options he may have exercised, Iacocca could have gained only an additional $11 million. (When the U.S. government exercises its warrants to buy 14.4 million Chrysler shares at $13 each, it stands to make a profit of $270 million at the July 1 price.)

The biggest winners on the list in percentage terms held shares in Pulte Home Corp., a homebuilder based in Southfield, Michigan.

NAME	Age	Residence	Company (percent owned)	Relationship to company	Value of shares on 7/1/83 Millions	GAIN IN BULL MARKET SINCE 8/12/82 Percent	Millions
GORDON P. GETTY	49	San Francisco	Getty Oil (10%)	Founder's son, director	$551*	59%	$205
PRESTON R. TISCH	57	New York City	Loews (22%)	President	$399	98%	$200
GAINED $100 MILLION TO $199 MILLION							
ROBERT W. GALVIN	61	Barrington, Ill.	Motorola (6.6%)	C.E.O.	$346	125%	$193
S. MARK TAPER	62	Beverly Hills	First Charter Financial (34.3%)	C.E.O.	$304	149%	$182
EDGAR M. BRONFMAN	54	New York City	Seagram (11.9%)	Founder's son, C.E.O.	$343	107%	$178
RICHARD R. ROGERS	40	Dallas	Mary Kay Cosmetics (24.7%)	Founder's son, president	$251	144%	$151
WILLIAM DAVIDSON	60	Northville, Mich.	Guardian Industries (41.2%)	C.E.O.	$243	161%	$150
ANNE COX CHAMBERS	62	Atlanta	Cox Communications (18.2%)	Founder's daughter, director	$266	86%	$123
PHYLLIS LAMBERT	56	Montreal	Seagram (7.8%)	Founder's daughter	$223	107%	$115
WILLIAM A. FICKLING JR.	51	Macon, Ga.	Charter Medical (82.9%)	Founder, C.E.O.	$188	148%	$111
JAMES GROSFELD	46	Bloomfield Hills, Mich.	Pulte Home Corp. (16.6%)	C.E.O.	$125	555%	$107

* FORTUNE estimate assuming equal division of Sarah C. Getty trust among three of the founder's sons and the estate of a fourth son

The stock climbed 556%, raising the holdings of the founder, William J. Pulte, by $239 million and of the chairman, James Grosfeld, by $107 million.

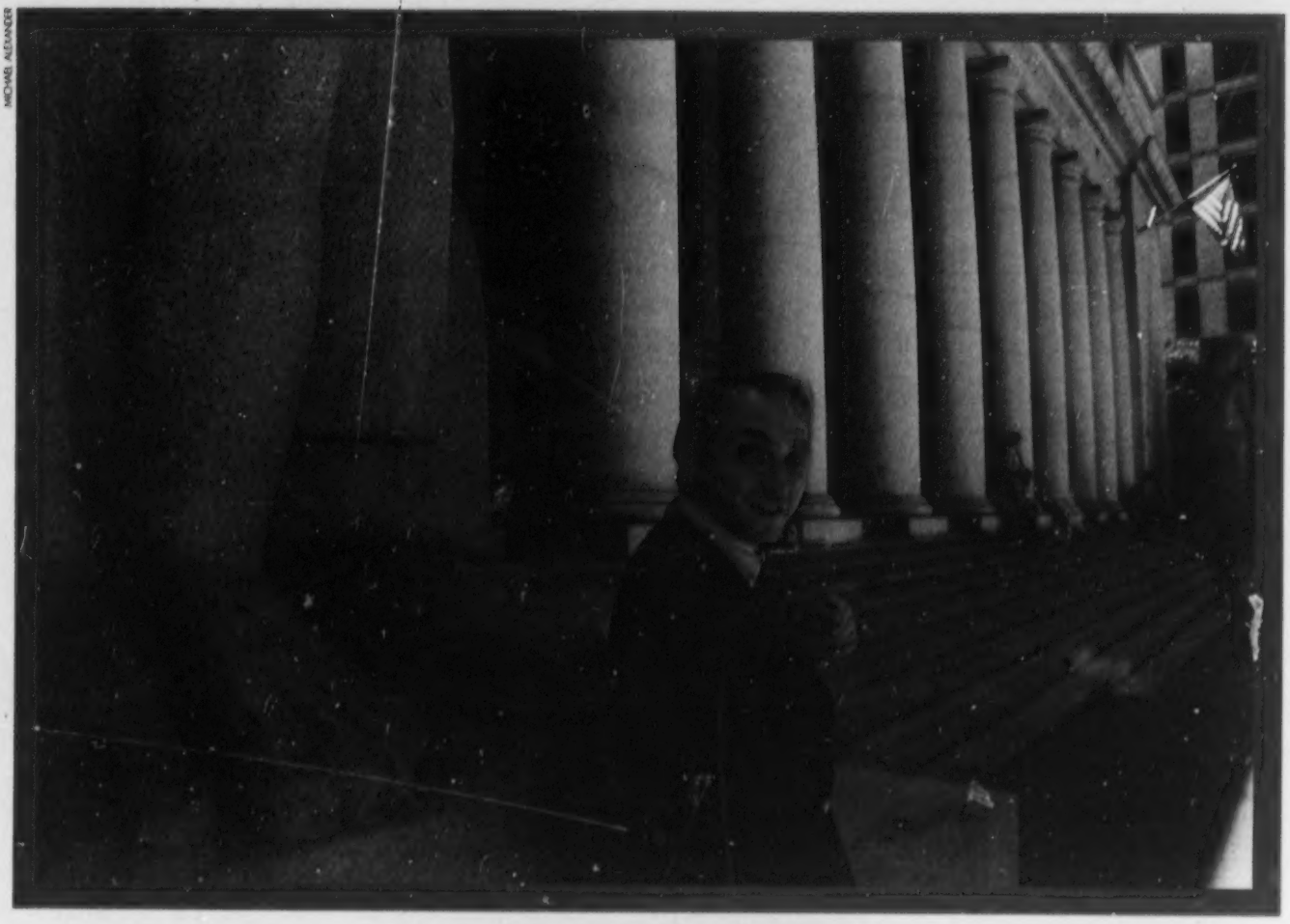
The list identifies big-winning individuals rather than extended families. FORTUNE attributed to individuals only shares held in their own names and in the names of their spouses and dependent children. Had brothers, sisters, grown children, or other relatives been lumped together, some fortunes listed would have grown markedly. Take the Walton family. Sam M. Walton of Bentonville, Arkansas, co-founder and chairman of the enormously successful Wal-Mart discount chain, and his four children would easily have topped the list, with a total gain of almost $1.5 billion. The father gained $301 million, and the children $297 million each. They control Wal-Mart through a holding company, Walton Enterprises Inc., in which each owns a one-fifth interest. Walton Enterprises in turn owns 41% of Wal-Mart. Sam Walton personally has an additional 39,712 shares.

Edgar M. and Charles R. Bronfman, chairman and deputy chairman of Seagram, together with their two sisters, would, if treat-

A BULL MARKET IS . . . A BULL MARKET

■ Anyone who hasn't spent the last year in Albania knows perfectly well that Wall Street is enjoying a robust bull market. How do we know? It's easy. A bull market is . . . well, uh, it's sort of when prices go up smartly for a spell. In fact, no precise definition exists. The Encyclopedia of Banking and Finance says feebly that a bull market is "a market in which the 'bulls' are in ascendancy and optimism and rising prices prevail." In other words a bull market is a bull market. The New York Stock Exchange has no definition of when a bull market begins or ends, but nevertheless claims that, not counting the current one, there have been exactly eight bull markets since World War II, lasting an average of 37 months and lifting the NYSE index by an average of 78%. If this bull market follows the usual form, it will peak soon after the next presidential election.

Some Wall Street buffs argue that a single bull market extended from the end of World War II until 1968 and that the stock exchange can find five in this period only by paying too much attention to minor setbacks. Professor Irwin Friend, the authority on the stock market at the Wharton School, says academics never have been able to agree on a definition. He says everyone would agree that the current bull market is genuine, and that the boom before the bust of 1929 was, but just about any other claim would be disputed. Only reluctantly was Friend drawn into agreeing that when stocks go up by 20% in a year, you probably have a bull market on your hands. The expert at MIT's Sloan School, Professor Fischer Black, dismissed the whole subject as "irrelevant." The market fluctuates randomly, he says, so dates and definitions are unimportant.



MICHAEL ALEXANDER

$440 MILLION

Leslie H. Wexner

Founder, chief executive, The Limited Inc.

ed as a family unit, have gained $587 million on their 40% share of the company. The brothers Tisch, Laurence A. and Preston R., chairman and president of Loews Corp., together made $397 million.

The run-of-the-mill executive who thinks his life would be fulfilled by, say, a mere $1 million worth of stock options, should not imagine that a paper profit of hundreds of millions has gone to the heads of the centimillionaires on FORTUNE's list. They are not importing medieval castles from Europe or otherwise spending conspicuously. Sam Walton drives a 1976 Chevrolet around what he calls "this dang little old town of Bentonville," where he lives and works. Tanned and tennis-fit at 65, he still leads the cheers at Saturday morning staff meetings. Philip Hwang's wife has kept her job as a dietitian at a Santa Clara hospital.

In a time that celebrates celebrity, the centimillion-dollar winners are refreshingly —and understandably—private. When Sam Walton's son Jim was asked recently what Walton Enterprises did besides hold Wal-Mart stock, he replied in a friendly way, "It's none of your business."

A few hundred million more is not likely to change the lives of people who already have a hundred million. The biggest winners, moreover, usually own so much stock in their companies that they cannot readily sell it without wrecking the market. They are also aware that paper profits made so quickly can disappear just as fast.

Indeed, some of the gains on FORTUNE's list represent no more than a partial recovery of past losses. George P. Mitchell, founder of Mitchell Energy & Development Corp., made $624 million in the bull market but is worth less than he was in 1980, when many oil companies hit their peak. Mitchell Energy dropped from a high of $45.60 a share to $10.75 last year. This year the stock climbed back to $32.625 and Mitchell recuperated three-fifths of a $1-billion paper loss.

Much of the Bronfman family's $587-million gain can probably be traced to a recovery in the price of Du Pont shares. Seagram purchased 21.3% of Du Pont for $2.6 billion in 1981. After the purchase, the value of the Du Pont holdings fell by $1.1 billion. They have since regained $888 million of the loss, in turn pushing the value of the Bronfmans' Seagram holdings back up. Still, the Du Pont shares are carried on Seagram's books at a price higher than they would fetch today. A Bronfman spokesman complains, "I object to the suggestion that the price on any day matters to them. They are not going to sell and they are not going to buy."

H. Ross Perot, the super computer salesman from Texarkana, Texas, has only just

climbed back from that historic April day in 1970 when the stock in the company he founded, Electronic Data Systems, dropped by $90 a share. Investors suddenly decided the stock was overpriced. The crew-cut, 5-foot 6-inch Perot personally lost $450 million—probably more than anyone has ever lost in a day. EDS President Morton H. Meyerson argues, though: "One doesn't suffer a loss if one doesn't sell the stock."

In each of the last five years, revenues, earnings, and earnings per share have all grown by more than 20%. On June 13 EDS closed at $41.75, finally passing the 1970 high (taking into account two intervening two-for-one splits). By July 1 the price had settled down to $36.125, but Perot's personal holdings have still climbed $412 million, to $597 million—more than three times their worth last fall. Over the years Perot has turned many of his shares over to a family trust, but he retains 16.6 million. If the trust and personal holdings are considered together, Perot is back to about where he was before the crash in 1970.

EDS, TeleVideo, and other electronics companies contributed the largest number of winners to FORTUNE's list, which isn't surprising since successful computer companies are growing so rapidly. Packard and Hewlett, both 70, have retired from active management but remain chairman and vice chairman of Hewlett-Packard. They founded the company with an investment of $538 in 1939, working in Packard's one-car garage in Palo Alto to produce an audio-oscillator invented by Hewlett. (Hwang made his first video display terminal in a California garage too.) Since then Hewlett-Packard has become an exemplary company, renowned for productivity, product quality, enlightened treatment of employees, and ability to keep dividends growing. The company, which makes measuring instruments, computers, and calculators, weathered the recent recession without one down quarter. It seems fitting that such a corporate paragon should produce two of the three top winners on FORTUNE's list. Hewlett-Packard stock has about doubled since last August, increasing Hewlett's holdings to $1 billion and Packard's to $2.1 billion. The two were equal owners until 1977, but then Hewlett, after his first wife died, sold one million shares to pay estate duties and put 1.8 million into a foundation.

Another fabulously successful computer company, Wang Labs, made its founder $357 million richer. An Wang, 63, came from Shanghai in 1945 to study at Harvard, and invented the magnetic core memory. He stayed on to develop a $1.2-billion-a-year business in office automation equipment. Just last month, Wang had to increase production of his small Professional computer from 300 to 800 a week to meet demand. Wang's 32-year-old son, Frederick, a senior vice president, gained $183 million.

MARIA ROBLEDO

$360 MILLION

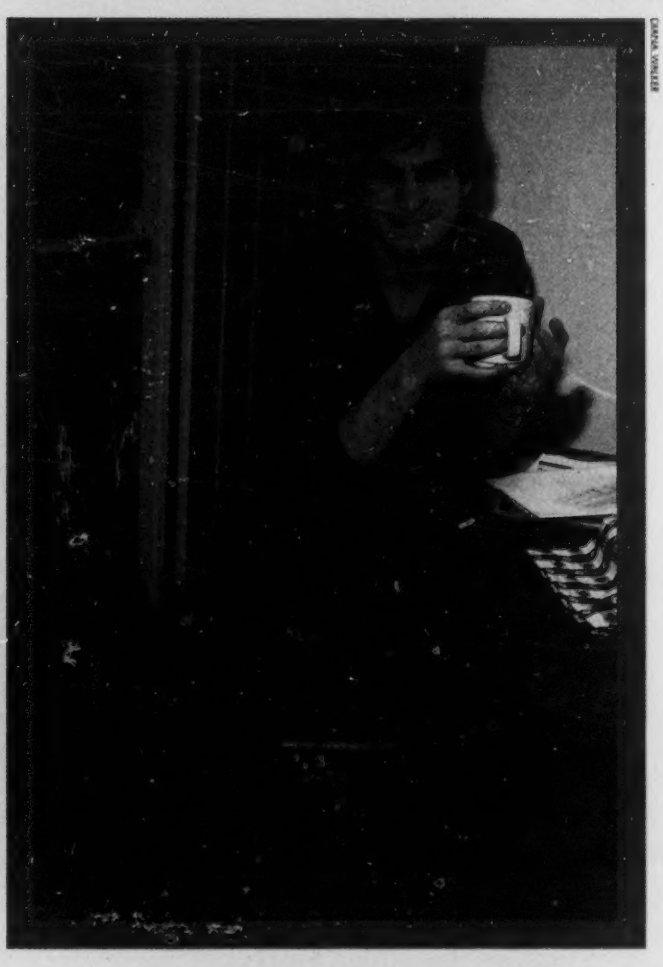
David B. Shakarian
Founder, chief executive, General Nutrition

Apple Computer, another product out of a California garage, handed a nice slice of the pie to two of its principals. Steven P. Jobs, the chairman, is the only centimillion-dollar winner under 30. His shares appreciated by $265 million. A. C. Markkula Jr., 40, the aged president, gained $222 million.

Publishing company shares perform particularly well in the early stages of a bull market, and many are still closely held by the founding families. Predictably, then, the Coxes (of Cox Communications), the Knights (Knight-Ridder), the Chandlers (Times Mirror Co.) and the Sulzbergers (New York Times Co.) were greatly favored in the last few months, though in the case of the Chandlers and the Sulzbergers no individual made enough to place on FORTUNE's list. The premier publishing beneficiaries of the bull market turned out to be the descendants of Clarence W. Barron, who bought Dow Jones & Co. in 1902 and ran it until his death in 1928. The family still holds an ample majority of the company's shares and takes a strong interest in its welfare.

The richest Barron heir is Jane B. Cook, 71, whose mother was adopted by Clarence Barron. For years Mrs. Cook was overshadowed on the board by her outspoken, horse-loving sister, Jessie Cox. But Jessie died last year at 73, and Jane has emerged as the strongest family member on the board. A private woman who lives quietly in Cohasset, Massachusetts, Mrs. Cook believes as strongly as her older sister that no outsider should interfere with or take over "grandfather's paper." The relationship is ideal for both management and owners. The manag-

BEN MEARS—CAMERA 5



DANA VINEKER

$301 MILLION

Sam M. Walton
Co-founder, chief executive, Wal-Mart

$265 MILLION

Steven P. Jobs
Co-founder, chairman, Apple Computer

ers pay the owners handsome dividends and the owners give the managers support without interference.

Like publishing, the retail business also furnished several winners, including two big ones whose names are hardly celebrated—David B. Shakarian, 69, chairman of General Nutrition Inc., and Leslie H. Wexner, 45, chairman of The Limited Inc., which owns hundreds of women's specialty apparel stores. Shakarian's holdings advanced $360 million and Wexner's $440 million.

Shakarian took almost four decades to reach these financial heights. He began selling a yogurt-like product in an old building in Pittsburgh in 1935. Not until the early 1960s, when Americans went gaga over health foods and fitness, did General Nutrition really begin to grow. Now Shakarian has 1,100 General Nutrition Centers in all states except Alaska selling mostly his own brand of products. The Shakarian family as a group controls about 82% of the stock, and Shakarian and his wife 59.5%.

Wexner's retail wealth came more quickly. Starting with a borrowed $5,000 in 1963, he established a chain that has grown to 500 women's specialty shops known as The Limited Stores, added some other smaller chains, and then last year more than doubled the size of his business by buying the Lane Bryant chain of stores for large women. Wexner is less than overwhelmed by what the stock market is telling him. "I can count," he says laconically, "but I am not too impressed by how the world values you from day to day. That's just one small measure of success."

Wexner is disconcerted, however, by the celebrity of wealth. "It limits relationships," he says, and "creates a separation that didn't exist before." He likes to go to Vail because he can walk around unrecognized in sweat shirt and old Levis. "If I did that at home in Columbus, people would see that as eccentric," he says. Wealth hasn't changed his life much. "I'm kind of a dull guy," he ruminates. He has endowed a chair at Ohio State University and bought himself a house in Florida. He is a bachelor.

The oil industry, hit by price cuts and a drop in demand, did not produce many winners. However, the heirs to J. Paul Getty shared in a paper profit of $820 million. As in Mitchell's case, the gain represents only a partial recovery from a low of $41.25 a share in 1982. Though the price had climbed a bit to $43.50 by last August and continued on up to $69.25 by July 1, Getty Oil shares were still one-third below their 1980 high. One reason for interest in the stock appears to be speculation about the trust set up in 1934 by J. Paul Getty. It is now worth $2.2 billion and

controls 40% of the company's stock. Kurt H. Wulff, a Donaldson Lufkin & Jenrette security analyst, says Getty has the most undervalued stock among integrated domestic companies, and a rumored reorganization that would spin off some assets could both help investors diversify and increase the value of their holdings. J. Paul Getty's fourth son, Gordon, 49, became sole trustee last year and presumably has more freedom to reorganize than existed before.

How the Getty fortune will be distributed—or how its income is now shared—neither the company nor family lawyers will discuss. Although Gordon is the sole trustee, he presumably shares the benefits with the family. That would include his brother, Ronald, and the heirs of his brother, George, who died of an overdose of barbiturates and alcohol in 1973. Gordon's third brother, J. Paul Jr., would also be included, although his bohemian life in Europe made him something of the family's black sheep.

Only two of the 53 on the list can be described as portfolio investors. One is the secretive, hard-boiled Carl H. Lindner, 64, the high-leverage specialist who built a little family-owned dairy in Cincinnati into a huge financial conglomerate, American Financial Corp. Lindner, who controls 50.5% of American Financial, took the company private in 1981, so its stock is not quoted on any market. However, American Financial owns big chunks of at least 13 publicly traded companies, and Lindner's 50.5% share of the unrealized gains in the stock of these companies amounts to $222 million.

The other investor, Warren Buffett, was even more successful. He and his wife control 47% of Berkshire-Hathaway, originally a New England textile firm, and 13% of Blue Chip Stamps, which in turn is 60% owned by Berkshire-Hathaway. (The two companies are scheduled to merge this year. The Buffetts will own 45.3% of the new Berkshire.) In addition to operating their regular businesses, the two companies have, under Buffett, built an impressive portfolio of stocks, mostly in insurance, publishing, and consumer goods. Buffett doesn't jump in and out of stocks, but does seem to make the right moves at the right time.

"I never attempt to make money on the stock market," says Buffett. Lest this claim appear too preposterous for belief, he explains that his investment philosophy is to buy into good businesses rather than pick promising stocks. "I buy on the assumption that they could close the market the next day and not reopen it for five years," he says. Buffett absorbed this philosophy from the late Benjamin Graham, the renowned exponent of investing in fundamental values, who was his teacher in graduate school at Columbia University. After learning from Graham and working on Wall Street, Buffett returned to his native Omaha, which seems to provide a calm vantage point from which fundamentals can be discerned clearly amid the market's turmoil. He made his first million by the time he was 31.

■ Except for a rarity such as Buffett, the big prizes in the stock market are reserved not for outside investors but for the entrepreneur who starts his own company, makes it successful, takes it public, retains a large share in it—and then ignores vast ebbs and flows in the value of his holdings. Still, elements of the big winners' strategy are available to any adventurous investor. One is to buy for the long term. The other is to concentrate on one or a few companies rather than diversify. All but six of the 53 investors on the list outperformed the New York Stock Exchange index. Concentration is a high-risk, but high-promise, posture. ■

THE FEW WHO LOST

■ Even when the bulls are frolicking, somebody is sure to lose money on Wall Street. But the surge of the market was so strong this time that losers weren't easy to find. Even Texas Instruments' stock, which dropped $39.50 a share one day in June when the company forecast a second-quarter loss, was 47% higher on July 1 than before the bull market began. Two major corporations, however, handed their stockholders some spectacular losses.

Warner Communications' shares were zapped by the troubles of the company's Atari subsidiary (see page 46). Warner Chairman Steven J. Ross and Executive Vice President Caesar P. Kimmel each lost over $4 million. But Warner's biggest loser was Jacob S. Liebowitz, 82, the founder of a comic book company that eventually came under Warner's wing, bringing Superman, Batman, and others in its train. Liebowitz lost $5.3 million.

Baldwin-United, the piano maker turned financial conglomerate, was a stock market sensation. Billionaire shipping magnate Daniel K. Ludwig once described Baldwin Chairman Morley P. Thompson, 56, as "the smartest man in America." But Thompson overborrowed to overacquire, and by July Baldwin was within a hair of bankruptcy. Having moved up from $24 on August 12 to a high of $50.625 in November, the stock declined to $8.625 when trading was suspended on June 29 for 12 days. Thompson, who went to work for Baldwin in 1950, is out of a job. Based on his holdings when he was ousted in May, he lost $6.9 million.

TERRY HOWIGAN

-$6.9 MILLION

Morley P. Thompson
Former chairman, Baldwin-United

CARL SKALAK

Day lilies bloom *in its backyard, but is this power plant in Brilliant, Ohio, decimating trees in Vermont and fish in Canada?*

REGULATION/MYRON MAGNET

HOW ACID RAIN MIGHT DAMPEN THE UTILITIES

■ Acid rain may fall on the just and the unjust alike, but on whom will the burden of ending it fall? Please Lord, cry electric utilities, oh please not on us. But while they watch politicians wind up to ever higher pitches of environmental rectitude as the New Hampshire primary draws nearer, utility executives have the sinking feeling they'd better get ready. In their heart of hearts, they're whispering, Oh please make that burden lighter than the billions it could be.

All the proposed solutions to acid rain would make electric companies in the 31 easternmost states do most of the cleaning up. Who will foot the bill, though, remains an open question—and a weighty one. Estimates of the total capital required for the job range from $6.2 billion to $35 billion, and another $2.2 billion to $12 billion could be tacked onto the utilities' annual operating expenses. The leading proposals would dump the whole amount on the electric companies, leaving them to parcel it out among their customers and shareholders.

How big a danger acid rain is no one really knows. Without doubt the sulfuric and nitric acid given off by fossil fuel combustion does drop out of the sky dissolved in rain or snow and does damage aquatic life. Some lakes in northeastern states and eastern Canada have lost whole species, even their entire populations, of fish and bugs, poisoned by aluminum sucked out of the surrounding soil by acid precipitation.

ENVIRONMENTALISTS, pointing to dying spruces on Vermont's Camel's Hump Mountain, say acid rain's to blame and argue that it might harm other vegetation as well. Some scientists worry that changes in soil chemistry caused by acid rain could be killing the bacteria that transform dead plants and animals into nitrogen and carbon. Without those bacteria, "everything ends up as a garbage heap," says William Nierenberg, director of the Scripps Institution of Oceanography and head of a White House panel to study acid rain. But whether acid rain really harms trees and bacteria is still unknown.

Nevertheless, Nierenberg's blue-ribbon panel of scientists declared in June that steps to curb acid rain are needed now, just in case. More than a few legislators had already reached the same conclusion, as a flurry of bills in both houses of Congress attests. Three Senate bills to amend the Clean Air Act differ chiefly in degree. All assert that there's too much sulfur and nitrogen oxide spewed into the air. Worse, the stuff gets blown up to 600 miles from the states that make it onto more fastidious areas downwind, even onto an indignant Canada.

What's needed, the Senate bills say, is to cut the sulfur dioxide emitted in the 31-state area that's affected by acid rain—now around 24 tons a year—by eight million to 12 million tons. A 12-million-ton reduction, environmentalists believe, would cut lake acidity in half, to a level where fish could flourish. Since utilities create most of the man-made sulfur dioxide—86% of it—they should clean it up, according to the bills' rationale. None of the bills mandates a reduction in oxides of nitrogen, responsible for 33% of the man-made component of acid rain. They're harder to reduce technically—and politically. Cars and trucks emit them, and new regulation would stir up powerful interests.

Acid rain poses a proven danger only in the Northeast, and no one knows exactly whence the region's acid comes. As a result, the proposed legislation requires utilities in all 31 states to cut emissions according to how much sulfur dioxide a state's utilities throw off per unit of electricity generated. Governors would allocate the reductions among their utilities. The costs would fall hardest on companies that burn high-sulfur coal, most of which are in the Ohio Valley.

Of the three ways to reduce sulfur dioxide emissions, two are relatively cheap and one requires major investment. Utilities can switch from high-sulfur eastern coal to the low-sulfur, lower-energy variety mostly found out West. But this, utility industry executives say, is harder than it sounds. It's not just that boilers are designed for a specific coal and that changing to a different variety might foul the furnace or require a new mechanism to feed fuel into it. Nor is it merely a question of having to break 20-year and 30-year contracts for coal. The real problem, industry spokesmen assert, is political. The electric companies most affected are in states that produce scads of high-sulfur coal, with elected officials and rate commissions sensitive to miners and their union. Pressure from the miners won them a clause in the Clean Air Act that allows governors to block utilities from switching to out-of-state coal.

Short of switching coal, utilities can wash what they've got. This entails crushing the coal and putting it in a water bath to clean out the sulfur-bearing rock—iron pyrites, or fool's gold—mixed up with it. The coal itself will float, while 20% to 30% of the sulfur will sink to the bottom. In theory, coal switching and coal washing can reduce emissions by five million tons. But technical difficulties and political obstacles, utility executives believe, could make two million or three million of those tons all but impossible to get.

That leaves scrubbers. These are towers, 60 to 100 feet high, that shower exhaust gases with ground lime or limestone mixed in water. The sulfur dioxide in the gas reacts with the lime to form a compound that drains into a tank at the bottom of the tower, leaving the "scrubbed" gas to billow out the chimney. If the resulting compound is calcium sulfate—gypsum—all is well; it can be dumped safely in landfills. But more often calcium sulf*ite* forms, and this glop, which remains forever the consistency of toothpaste unless it is expensively dried, is hard to dump. Since a typical power plant scrubber can turn out enough of this useless stuff in a year to cover a square mile one foot deep, scrubbers have a pollution problem all their own. But cost is the main drawback, and not just the capital cost of $100 million to $300 million per scrubber (about a third the price

UTILITY	ESTIMATED ANNUAL COSTS OF REDUCING EMISSIONS		
	TOTAL (MILLIONS OF DOLLARS)	AS % OF COMPANY'S CASH FLOW	PER RESIDENTIAL CUSTOMER (DOLLARS)
AMERICAN ELECTRIC POWER	$818	104.6%	$265
THE SOUTHERN COMPANY	572	53.6%	180
DETROIT EDISON	342	85.7%	198
UNION ELECTRIC COMPANY	254	136.6%	285
FLORIDA POWER & LIGHT	223	39.8%	92
PUBLIC SERVICE INDIANA	198	158.4%	417
DOMINION RESOURCES	191	38.1%	91
TECO ENERGY	182	150.8%	442
WISCONSIN ELECTRIC POWER	162	69.7%	191
CINCINNATI GAS & ELECTRIC	151	103.2%	214
PENNSYLVANIA POWER & LIGHT	149	110.0%	39
ILLINOIS POWER COMPANY	146	83.9%	279
INDIANAPOLIS POWER & LIGHT	137	146.5%	394
DUKE POWER COMPANY	125	23.5%	96
CENTRAL ILLINOIS PUBLIC SERVICE	100	85.7%	290
WISCONSIN POWER & LIGHT	49	50.3%	183

Some Possible Costs of Mopping Up

The figures above, based on a survey by the Edison Electric Institute, the utility trade association, show how the mildest proposal for eliminating acid rain might affect power companies in 31 Eastern states. The estimated costs, which would begin in 1993, are stated in 1982 dollars. The middle column shows the costs as a percentage of each company's average cash flow over the last three years.

RESEARCH ASSOCIATE *Joan W. Campo*

of a new coal-fired power plant). The scrubbers themselves eat up between 5% and 8% of a plant's total power output.

Technology improvements are imminent, though. A new boiler technology that promises to obviate the acid rain problem and make scrubbers obsolete is knocking at the door. Called fluidized bed combustion, this process suspends marble-sized bits of limestone and burning coal on a column of air blown in from the bottom of the boiler. When the sulfur dioxide that's produced combines with the marbles of limestone, it turns into easy-to-dump gypsum. The nitrogen oxides emitted are roughly half the present amount. At least three power companies will start building demonstration plants using this technology within the next couple of years.

Given present technology even the mildest of the Senate bills could clobber utility customers and shareholders. The bill would oblige utilities in the 31-state area to cut emissions by eight million tons a year by 1993. Hardest hit would be American Electric Power in Columbus, Ohio, the nation's largest investor-owned electric company. It would comply by shoehorning scrubbers into six generating plants, switching coal at two others, and prematurely retiring six. The company figures that the capital outlays would come to $5 billion, and annual costs, including depreciation and higher operating expenses, would total $818 million.

If all the costs were passed along to customers, AEP's rates would rise an average 18%. One of AEP's eight operating companies, Ohio Power, would need a 38% rate hike. An industry survey of 24 utilities found that they would need rate increases averaging 15.7% by the 1990s. (Projected costs and rate increases for 16 of the companies are shown in the table on the preceding page.)

WERE CONGRESS to mandate a ten-million- or 12-million-ton reduction in sulfur dioxide, the costs would leap upward, for each additional cut is harder and more expensive to achieve. If the required reduction is ten million tons instead of eight million, the capital cost could more than double; from eight million to 12 million tons, operating costs could double and capital costs triple.

As for the effect of all this on utility stock prices, financial analysts say it's too early to tell. It seems unlikely, though, that state regulators would allow utilities to load all the costs on customers. Some are bound to be left with the companies and their shareholders. A key issue affecting share prices would be the timing of rate increases. Companies whose regulators would let them include a portion of their construction costs as they were incurred would fare better than ones that had to wait till the equipment was in service before starting to recover the expenses.

For now, the stock market seems untroubled by the specter of acid rain legislation. "There are psychological issues that haven't moved the stocks yet," says Margery Obrentz, a security analyst at Kidder Peabody & Co., "but as Congress gets more serious about this, we expect the stocks to move a little."

Perhaps the market is so untroubled because no one really expects Congress to slap an unproductive $10-billion or $20-billion capital expense on the utility industry. Not that acid rain legislation won't pass; it probably will. But sentiment is strong against saddling one industry or region with the whole cost, especially since smelters, steel mills, auto plants, and home furnaces all contribute to the acid brew. So it may well be that one of several spread-the-cost schemes under consideration will shift the burden at least partially off utility shoulders.

continued

The Goodyear Tire & Rubber Company

through a wholly owned subsidiary
has acquired by merger

Celeron Corporation

The undersigned acted as financial advisor to The Goodyear Tire & Rubber Company.

Dillon, Read & Co. Inc.

June 21, 1983

A BILL PUT FORTH by Democratic Congressman Henry Waxman of California is the most visible of these plans. He envisions a kind of superfund, raised by a one mil (0.1 cent) tax on each kilowatt of electricity sold in the 48 contiguous states. Only nuclear power would be exempt, since its generation doesn't contribute to acid rain. The $2 billion a year raised by this tax, costing consumers a 3.5% to 4% hike in their electricity bills, would be used to buy scrubbers or other equipment necessary to clean up 50 large emitters of sulfur dioxide and nitrogen oxides. (Waxman's bill doesn't make clear whether the recipients would be allowed to depreciate the equipment—taking a bite out of taxpayers after first taking one out of electricity users.) Seven million of the ten-million-ton sulfur dioxide reduction the bill envisions would result from these measures; the rest of the burden would fall on utilities.

Other spread-the-cost measures include a tax credit for the acid rain costs utilities pass through in electric bills or, alternatively, a nationwide electricity surcharge that would be somewhat higher in states with hefty emissions. Utilities favor a tax on all fossil fuels, including gasoline, since cars are to blame for 44% of the nitrogen oxides emitted.

S. Fred Singer, a senior fellow at the Heritage Foundation and a member of the White House panel studying acid rain, has come up with a quite different suggestion for allocating the costs: let government set the total amount of allowable emissions in the 31-state area and then sell or give away the right to spew out a portion of that total to current polluters. The polluters could resell the rights if they wanted. Companies that could cut emissions most cheaply would do so and cash in on their emission rights by selling them to others whose cleanup costs were higher, assuring by this market process a least-cost solution that the political process can't achieve.

Quite apart from how the costs should be allocated is the question of how great those costs should be. Prior to the Clean Air Act of 1970, air pollution was a manifest danger to the public health, and hardly anyone doubts that a substantial fraction of the enormous amount expended to make the air cleaner was justifiably spent. But if acid rain turns out not to be a killer of trees and soil bacteria, differences will rage over how much it is worth to save just the fish and insects in the thousands of Adirondack, New England, and Canadian lakes that unquestionably are affected. "Are those fish worth up to $5 a pound?" asks economist Hoff Stauffer of ICF Inc., a Washington consulting firm that has studied acid rain for both the Edison Electric Institute and the National Wildlife Federation. "If it turned out it'd cost $5,000 a pound, why that's just not worth it."

In the next month or two William Ruckelshaus, director of the Environmental Protection Agency, will announce his own plan for neutralizing acid rain. A recent speech suggests he'll favor a phased reduction, sensibly taking the relatively cheap steps first and monitoring the results before proceeding further. In the meantime, the research on how serious acid rain is, and where the most critical sources of it are, will go on.

■ Business needs to monitor the acid rain debate closely, for if the cleanup cost goes higher than what's essential, that's bad news for more than just utilities. Whatever is done will drive up the price of electricity, a key production cost for almost all manufacturing, and especially for the heavy industries of the Midwest, where the mopping up will be the most expensive. F

Southern Pacific Company

has sold its wholly owned subsidiaries

Southern Pacific Communications Company

and

Southern Pacific Satellite Company

to

GTE Corporation

MORGAN STANLEY & CO.
Incorporated

June 21, 1983

Southern Pacific Company, one of the country's largest transportation and financial services organizations, with extensive real estate and natural resource holdings, has sold its microwave and satellite communications subsidiaries to GTE Corporation for $740 million in cash (before expenses of the sale).

Morgan Stanley served as financial advisor to Southern Pacific Company in this transaction. Morgan Stanley reviewed strategic alternatives available to Southern Pacific Company, participated in the negotiation of the terms and structure of the transaction, and assisted with the closing of the transaction.

THE 50 LEADING EXPORTERS

THE FORTUNE DIRECTORY OF THE LARGEST U.S. INDUSTRIAL EXPORTERS

■ Foreign sales of U.S. products felt the punishing effects of a rising dollar in 1982, and after three years atop FORTUNE's list of leading exporters, Boeing fell from its perch. Though the prices of American industrial exports increased only 4.2% on average, the dollar soared 16% against a basket of 22 major currencies, following a 14% gain in 1981. With their wares far more expensive to foreign buyers and the world economy in a slump, the top 50 exporters suffered a 6.8% decline in foreign sales, to $59 billion. The dismal trend promises to continue right into 1984.

General Motors, the new No. 1, didn't so much rise to the top spot in 1982 as fall into it. The auto giant's export sales—including big cars for the Middle East and components for auto assembly plants in Canada, Mexico, and Venezuela—decreased by 18%, against 36% for Boeing. General Electric moved up to the No. 2 spot despite a 10% decline in its exports. Besides aircraft engines, which it sells worldwide, GE's 1982 shipments included gas turbines to Saudi Arabia and locomotives to Indonesia.

Boeing's doldrums were shared by most of the other aircraft and aircraft engine manufacturers on FORTUNE's list. Export revenues fell 21% for the seven aviation industry repeaters from last year's lineup. Northrop, whose F-5 fighter has been a hit with foreign governments, was the only trend bucker; its exports rose 15%. The biggest loser of all, though, was poor International Harvester, which dropped from No. 16 on the list to No. 40. Harvester's shipments abroad plummeted 51%.

Cruel as it was for some of the top 50, 1982 was just as hard on lots of medium-size and small exporters. All together, sales of U.S. merchandise abroad—counting farm goods as well as military hardware—were down 9.1%, to $223 billion. And with imports declining less than exports, the U.S. trade deficit widened to $43 billion.

Looking at the few bright spots, the demand for American technology has been holding up. Five of the seven manufacturers of computers and electronic components that were also on last year's list of major exporters showed gains in 1982, with a combined increase of 7%. Of this year's six newcomers, three are high-tech firms: Motorola, a big exporter of two-way radio equipment and semiconductors; Harris, whose foreign sales include satellite communications equipment and high-performance minicomputers; and Burroughs, the computer manufacturer. Philip Morris did well too, rising from No. 22 to No. 14 with the help of brisker cigarette sales in the Far East.

The biggest gainer last year was Occidental Petroleum, whose exports leaped 58% with a mighty assist from the Soviet Union. The bulk of Occidental's foreign trade is in fertilizer, whose market collapsed last year. Farmers can defer purchases in bad years, as they generally did with a vengeance. But Occidental more than made up for this with heavy shipments of superphosphoric acid fertilizer to the U.S.S.R. under a huge, 20-year contract landed by Chairman Armand Hammer in 1974.

Occidental's gains came as other U.S. companies were hurt by restrictions on Soviet trade, in particular President Reagan's embargo on equipment for the Siberian gas pipeline. Caterpillar Tractor, for example, lost a $90-million contract for pipelaying equipment and probably a great deal more in orders not placed. Even businesses that had nothing to do with the pipeline worry that foreigners no longer perceive Americans as reliable trading partners and are beginning to look elsewhere.

Congress is grappling with this concern as it considers amendments to the Export Administration Act of 1979. One proposed amendment likely to become law is a sanctity-of-contract provision, which would allow companies to fulfill the terms of existing contracts if new embargoes are imposed.

The main inhibitors of exports, though, remain the strong dollar and the sluggish worldwide economy. The dollar could weaken, but Secretary of Commerce Malcolm Baldrige says orders and shipments would still take a while to pick up. "Even if the dollar falls later this year," he declares, "we can't expect to see any improvement in exports until late 1984." For America's leading exporters, things will get worse before they get better. —ANDREW KUPFER

RANK '82	RANK '81	COMPANY	PRODUCTS	EXPORTS $000	FORTUNE 500 SALES $000	FORTUNE 500 RANK	EXPORTS AS PERCENT OF SALES PERCENT	EXPORTS AS PERCENT OF SALES RANK
1	2	**General Motors** (Detroit)	Motor vehicles and parts, locomotives, diesel engines	4,673,800	60,025,600	2	7.79	39
2	3	**General Electric** (Fairfield, Conn.)	Aircraft engines, generating equipment, locomotives	3,921,000	26,500,000	11	14.80	22
3	1	**Boeing** (Seattle)	Aircraft	3,879,000	9,035,000	34	42.93	1
4	4	**Ford Motor** (Dearborn, Mich.)	Motor vehicles and parts	3,733,000	37,067,200	5	10.07	38
5	5	**Caterpillar Tractor** (Peoria, Ill.)	Construction equipment, engines	2,619,000	6,469,000	45	40.49	2
6	7	**E.I. du Pont de Nemours** (Wilmington, Del.)	Chemicals, fibers, polymer products, petroleum, coal	2,559,000	33,331,000	8	7.68	41
7	8	**United Technologies** (Hartford)	Aircraft engines, helicopters	2,271,721	13,577,129	20	16.73	17
8	6	**McDonnell Douglas** (St. Louis)	Aircraft, missiles, space systems	2,076,500	7,331,300	43	28.32	4
9	9	**International Business Machines** (Armonk, N.Y.)	Information-handling systems, equipment, and parts	1,875,000	34,364,000	6	5.46	45
10	10	**Eastman Kodak** (Rochester, N.Y.)	Photographic equipment and supplies	1,853,000	10,815,000	26	17.13	16
11	•	**Chrysler** (Highland Park, Mich.)	Motor vehicles and parts	1,795,900	10,044,900	29	17.88	14
12	11	**Westinghouse Electric** (Pittsburgh)	Generating equipment, defense systems	1,356,700	9,745,400	31	13.92	24
13	23	**Occidental Petroleum** (Los Angeles)	Agricultural chemical products, coal	1,205,000	18,212,226	15	6.62	44
14	22	**Philip Morris** (New York)	Tobacco products	1,142,000	9,101,600	32	12.55	29
15	17	**Hewlett-Packard** (Palo Alto, Calif.)	Computers, electronic equipment	1,083,000	4,254,000	81	25.46	5
16	12	**Signal Companies** (La Jolla, Calif.)	Trucks, engines, chemicals, audio-video systems	1,075,400	4,935,600	69	21.79	10
17	14	**Union Carbide** (Danbury, Conn.)	Chemicals, plastics	979,000	9,061,500	33	10.80	34
18	18	**Weyerhaeuser** (Tacoma, Wash.)	Pulp, logs, lumber, wood products, newsprint	924,000	4,186,224	82	22.07	9
19	13	**Raytheon** (Lexington, Mass.)	Defense electronic systems, aircraft	917,000	5,513,370	58	16.63	18
20	20	**Archer Daniels Midland** (Decatur, Ill.)	Soybean meal and oil, wheat, corn	876,000	3,712,977	102	23.59	7
21	15	**Monsanto** (St. Louis)	Herbicides, chemicals, polymer products, fibers	864,000	6,325,000	47	13.66	26
22	•	**General Dynamics** (St. Louis)	Tanks, aircraft, missiles, gun systems	852,900	6,352,600	46	13.43	27
23	21	**Exxon** (New York)	Petroleum, chemicals	831,000	97,172,523	1	0.86	49
24	19	**Dow Chemical** (Midland, Mich.)	Chemicals, plastics, magnesium metal	826,000	10,618,000	27	7.78	40
25	25	**Northrop** (Los Angeles)	Aircraft, electronic equipment, related support services	823,700	2,472,900	158	33.31	3
26	•	**International Telephone & Telegraph** (New York)	Logs, cellulose pulp	816,000	15,958,440	16	5.11	46
27	•	**Motorola** (Schaumburg, Ill.)	Radio communications systems, semiconductors	814,966	3,785,847	98	21.53	11
28	27	**Dresser Industries** (Dallas)	Oil-field and industrial equipment	733,700	4,160,600	83	17.63	15
29	29	**Digital Equipment** (Maynard, Mass.)	Computer systems and equipment	722,866	3,880,771	95	18.63	13
30	31	**FMC** (Chicago)	Industrial and farm equipment	667,132	3,498,792	111	19.07	12
31	28	**Deere** (Moline, Ill.)	Farm and industrial equipment	630,000	4,608,226	75	13.67	25
32	26	**Lockheed** (Burbank, Calif.)	Aircraft and related support services	622,000	5,613,000	56	11.08	32
33	24	**Ingersoll-Rand** (Woodcliff Lake, N.J.)	Drills, compressors, pumps, bearings, tools	617,400	2,774,725	144	22.25	8
34	37	**Sperry** (New York)	Computer systems and equipment	591,400	5,571,400	57	10.61	35
35	33	**Phillips Petroleum** (Bartlesville, Okla.)	Petrochemicals, natural gas	580,000	15,698,000	17	3.69	48
36	36	**Rockwell International** (Pittsburgh)	Aerospace, electronic, automotive, industrial equipment	519,000	7,395,400	42	7.02	43
37	39	**Aluminum Co. of America** (Pittsburgh)	Aluminum	517,800	4,647,600	74	11.14	31
38	45	**Minnesota Mining & Manufacturing** (St. Paul)	Health-care, industrial, graphics, electronics products	505,000	6,601,000	44	7.65	42
39	30	**Celanese** (New York)	Fibers, chemicals	494,000	3,062,000	126	16.13	19
40	16	**International Harvester** (Chicago)	Construction and farm equipment, trucks	493,000	4,725,057	73	10.43	36
41	32	**Mobil** (New York)	Petroleum, chemicals	474,000	59,946,000	3	0.79	50
42	50	**Emerson Electric** (St. Louis)	Electronic components	459,600	3,502,327	110	13.12	28
43	35	**Textron** (Providence)	Helicopters and other aerospace products	456,000	2,936,000	136	15.53	20
44	34	**R.J. Reynolds Industries** (Winston-Salem, N.C.)	Tobacco products	440,000	10,906,000	25	4.03	47
45	43	**International Paper** (New York)	Pulp, paper, and wood products	438,000	4,015,200	91	10.91	33
46	42	**Kaiser Aluminum & Chemical** (Oakland, Calif.)	Aluminum	436,500	2,911,500	138	14.99	21
47	44	**Combustion Engineering** (Stamford, Conn.)	Oil-field and industrial equipment	432,320	3,569,817	105	12.11	30
48	•	**Harris** (Melbourne, Fla.)	Communications and information-processing equipment	423,800	1,719,028	199	24.65	6
49	•	**Burroughs** (Detroit)	Data-processing and business equipment	417,956	4,095,291	85	10.21	37
50	40	**American Motors** (Southfield, Mich.)	Motor vehicles and parts	416,355	2,878,416	139	14.46	23
		TOTALS		**58,731,416**	**628,684,486**			

• Not on last year's list.